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<!--StartFragment-->RESULT 4
ADS23079
ID ADS23079 standard; protein; 554 AA.
XX
AC ADS23079;
XX
DT 15-JUN-2007 (revised)
DT 02-DEC-2004 (first entry)
XX
DE Bacterial polypeptide #12112.
XX
KW Recombinant DNA construct; transformed plant; improved plant property;
KW cold tolerance; heat tolerance; drought tolerance; herbicide; osmosis;
KW pathogen tolerance; pest tolerance; plant disease resistance;
KW cell cycle pathway modification; plant growth regulator;
KW homologous recombination; seed oil yield; protein yield; carbohydrate;
KW nitrogen; phosphorus; photosynthesis; lignin; galactomannan;
KW bacterial polypeptide; BOND_PC; alpha-glucosidase;
KW alpha-glucosidase [Mesorhizobium loti MAFF303099].
XX
OS Bacteria.
XX
PN US2003233675-A1.
XX
PD 18-DEC-2003.
XX
PF 20-FEB-2003; 2003US-00369493.
XX
PR 21-FEB-2002; 2002US-0360039P.
XX
PA (CAOY/) CAO Y.
PA (HINK/) HINKLE G J.
PA (SLAT/) SLATER S C.
PA (CHEN/) CHEN X.
PA (GOLD/) GOLDMAN B S.
XX
PI Cao Y, Hinkle GJ, Slater SC, Chen X, Goldman BS;
XX
DR WPI; 2004-061375/06.
DR PC:NCBI; g13474261.
XX
PT New recombinant DNA construct comprising a promoter positioned to provide
PT for expression of a polynucleotide encoding a polypeptide from a
PT microbial source, useful for producing plants with improved properties.
XX
PS Claim 1; SEQ ID NO 12112; 122pp; English.
XX
CC The invention relates to a recombinant DNA construct comprising a
CC promoter functional in a plant cell, where the promoter is positioned to
CC provide for expression of a polynucleotide encoding a polypeptide from a
CC microbial source. The invention also relates to a transformed plant
CC comprising the recombinant DNA construct and a method of producing a
CC transformed plant having an improved property. The plant is a crop plant
CC such as maize or soybean. The method of producing a transformed plant
CC having an improved property comprises transforming a plant with the
CC recombinant DNA construct and growing the transformed plant, where the
CC polynucleotide or polypeptide is useful for improving plant properties.
CC The recombinant DNA construct is useful for producing plants with
CC improved plant properties, e.g. improved cold, heat or drought tolerance,
CC tolerance to herbicides, extreme osmotic conditions, pathogens or pests,
CC increased resistance to plant disease, better growth rate by modification

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CC of the cell cycle pathway with plant growth regulators, increased rate of
CC homologous recombination, modified seed oil or protein yield and/or
CC content, improved yield by modification of carbohydrate, nitrogen or
CC phosphorus use and/or uptake, by modification of photosynthesis or by
CC providing improved plant growth and development under at least one stress
CC condition, improved lignin production or improved galactomannan
CC production. This sequence represents a bacterial polypeptide used in the
CC scope of the invention. Note: The sequence data for this patent did not
CC form part of the printed specification but was obtained in electronic
CC format from USPTO at seqdata.uspto.gov/sequence.html.

CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed
CC information from BOND.

Sequence 554 AA:

Query Match 54.2%; Score 1584; DB 8; Length 554;
Best Local Similarity 56.7%; Pred. No. 7.4e-141;
Matches 304; Conservative 67; Mismatches 155; Indels 10; Gaps 7;

Qv 3 EWWRGAVTYOVYPRSFODSNGDGIGDLPGITARLEYLADLGVDVWLSPPFFKSPMKDMGY 62

Db 18 DWNRGAVIYQIYPRSYQDSNGDGIGDLKGIIERLPYIAALGADAIWISPFKSPMKDFGY 77

Ov 63 DVSDYCDVDPVFGTLADFDALLARAHELGLKVIIDOVLSHSSDLHPAFVTSRSDRVNPKA 122

Db 78 DVSDYCDVDPMEFGLADFDALTAEAHRLGLKVMIDEVLSHTADIHPWFKESRSSRSNPKA 137

Qv 123 DWYVWADPKPDGSPNNWLSVFGGSAWAWDARRKOYYLHNFELTSOPDLNYHNPKVODWAL 182

Db 138 DWYVWADARPDGTPPNWLSIFGGSAWOWDTSROOYYLHNFLAEOPDLNFHNREVODALL 197

Ov 183 DNMREWLDRGVDGFRFDTVNYFFHDP LLRSN---PADHRNKPEADG-NPYGMOYHLHDKN 238

Db 198 DVTRFWLERGV D GFR LDTINFYFHSO GLENNPPLPPEERNDOTAPAVNPYNYODHLYDKS 257

Qv 239 OPENLIWMERIRVLLDOYGA-ASVGEMGESHHAIRMMGDYTAPG-RLHOCYSFEFMGYE- 295

Db 258 RPENLGFLERFRALLDEYPATAAVGEVGDSSORGLLEVVAAYTAGGKRVHMCYSFDFLAPEK 317

Qv 296 YTANLFRDRIESFFKGAPKGNPMWAFSNHDVVRHVSRWAKHGLTPEAVAKQTGALLLSLE 355

Db 318 ISAAKVRSVLEAFGKVASDGNWSCWAFSNHDVMRPA SRWAAGEADPVAYLKVISALLMSLR 377

Qv 356 GSICLWEGEELGOTDTELALDELTDPOGIVFWPEPIGRDNT RTPMVWDA-SPHGGFSTVT 414

Db 378 GSVCIYQGEELGLGEAELRFEDLQDPYGIRFWPEFKGRDGCRTPMVWDGDAKNGGFSQAK 437

Ov 415 PWLPVKPEOAAARHVAGOTGDAASVLESYRAMLAFRRAEPALRTGRTRFLDLAEPVLGFVR 474

Db 438 PWLPVPAKHLA OAVNVOOGDOASLLEHYRRFLSFRR AHPALAKG DITFIESEGDTVA FTR 497

Qy 475 GEGEGAILCLFNL--SPVARGVAVEGVGPPIGPGQQAILSGGRLGLGPNGAAFLRV 528

Db 498 RAGNEQVVCVFNLGAKPAKVDLGSRSLQPLPGHGFSGQARPGSIELGGYGAWFGRI 553

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